

## WHAT IS CLAIMED IS:

1. A brush seal device mounted to one of two parts that move relative to each other with a gap therebetween, for sealing the gap between said parts, comprising:
- a brush seal formed from bristles arranged into a wall shape, and including an attachment portion formed by connecting said bristles together at one end, and a free end face facing an opposing surface of said other part;
- a back plate connected to said attachment portion of said brush seal, and including a support surface for supporting a side surface of said brush seal; and
- a retaining plate for retaining said attachment portion of said brush seal between said retaining plate and said back plate, wherein
- said support surface of said back plate and an opposing surface of said brush seal are disposed at a distance from each other, and said bristle of said brush seal has a diameter of 0.15 mm to 0.008 mm.
2. The brush seal device according to claim 1, wherein said back plate includes a line-shaped projection at said support surface, which extends along an arrangement direction of said bristles.

3. The brush seal device according to claim 1, wherein said back plate includes a recess formed along an arrangement direction of said bristles, and said recess serves as said support surface.

5

4. The brush seal device according to claim 3, wherein said recess has a line-shaped projection extending along the arrangement direction of said bristles.

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5. The brush seal device according to claim 3, wherein said bristles of said brush seal are tilted from said attachment portion, and said support surface of said back plate or a side surface of said retaining plate facing said brush seal includes a resistance means for preventing said bristles from moving in such a direction as reduces their tilt angle.

15

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